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Changes

The material in this document is for information only and subject to change without notice. While reasonable efforts have been made in the preparation of this document to assure its accuracy, LaCie assumes no liability resulting from errors or omissions in this document, or from the use of the information contained herein. LaCie reserves the right to make changes or revisions in the product design or the product manual without reservation and without obligation to notify any person of such revisions and changes.

Canada Compliance Statement

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

FCC Statement

LaCinema Rugged HD

Tested to comply with FCC standards for home or office use

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions:

1. The devices may not cause harmful interference
2. The devices must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Modifications to this product not authorized by LaCie could void the FCC & Industry Canada regulations and negate your authority to operate the product.

Manufacturer's Declaration for CE Certification

We, LaCie, solemnly declare that this product conforms to the following European standards: Class B EN60950, EN55022, EN55024, EN61000-3-2: 2000, EN61000-3-3: 2001

With reference to the following conditions: 73/23/EEC Low Voltage Directive; 89/336/EEC EMC Directive

CAUTION: Modifications not authorized by the manufacturer may void the user's authority to operate this device.

This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designed collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service, or the shop where you purchased the product.

CAUTION: The LaCinema Rugged HD's warranty may be void as a result of the failure to respect the precautions listed above.

Health and Safety Precautions

- Only qualified persons are authorized to carry out maintenance on this device.
- Read this User Manual carefully and follow the correct procedure when setting up the device.
- Do not open a disk drive or attempt to disassemble or modify it. Never insert any metallic object into the drive to avoid any risk of electrical shock, fire, short-circuiting or dangerous emissions. The disk drives shipped with your LaCinema Rugged HD contain no user-serviceable parts. If it appears to be malfunctioning, have it inspected by a qualified LaCie Technical Support representative.
- Never expose your device to rain, or use it near water, or in damp or wet conditions. Never place objects containing liquids on the LaCinema Rugged HD, as they may spill into its openings. Doing so increases the risk of electrical shock, short-circuiting, fire or personal injury.
- Make sure that the computer and LaCinema Rugged HD are electrically grounded. If the devices are not grounded, there is an increased risk of electrical shock. Power requirements 100-240 V~, 1.5 A, 60-50 Hz, (Supply voltage fluctuations not exceeding ± 10% of the nominal, transient over-voltages according to over-voltage category II).

General Use Precautions

- Do not expose the LaCinema Rugged HD to temperatures outside the range of 5° C to 30° C (41° F to 86° F); or to operational humidity beyond 5-80%, non-condensing, or non-operating humidity beyond 10-90%, non-condensing. Doing so may damage the LaCinema Rugged HD or disfigure its casing. Avoid placing your LaCinema Rugged HD near a source of heat or exposing it to sunlight (even through a window). Inversely, placing your LaCinema Rugged HD in an environment that is too cold or humid may damage the unit.
- Always unplug the LaCinema Rugged HD from the electrical outlet if there is a risk of lightning or if it will be unused for an extended period of time. Otherwise, there is an increased risk of electrical shock, short-circuiting or fire.
- Use only the power supply shipped with the device.
- Do not place objects on top of the LaCinema Rugged HD or use excessive force on it.
- Never use excessive force on your LaCinema Rugged HD. If you detect a problem, see the Troubleshooting section in this manual.

CAUTION: A shielded-type power cord is required in order to meet FCC emission limits and also to prevent interference to the nearby radio and television reception. It is essential that only the supplied power cord be used.

Operating Environment Temperatures

- Do not expose the LaCinema Rugged HD to temperatures outside the range of 5° C to 30° C (41° F to 86° F). As high end audio/video appliance, the LaCinema Rugged HD has been designed with an efficient ventilation system. Allow 5 cm of clearance for airflow on all sides of the LaCinema Rugged to prevent overheating. See *Fig. 01*.
- Do not stack the LaCinema Rugged HD on another audio/video appliance such as a TV, VCR or DVD player. Other audio/video appliances require sufficient airflow and carry the same precautions of use. See *Fig. 02*.

IMPORTANT INFO: Any loss, corruption or destruction of data while using a LaCie drive is the sole responsibility of the user, and under no circumstances will LaCie be held liable for the recovery or restoration of this data. To help prevent the loss of your data, LaCie highly recommends that you keep **TWO** copies of your data; one copy on your external hard disk, for instance, and a second copy either on your internal hard disk, another external hard disk or some other form of removable storage media. LaCie offers a complete line of CD and DVD drives. If you would like more information on backup, please refer to our website.

IMPORTANT INFO: 1GB = 1,000,000,000 bytes. 1TB = 1,000,000,000,000 bytes. Once formatted, the actual available storage capacity varies depending on operating environment (typically 5-10% less).

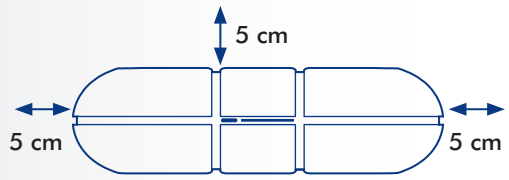


Fig. 01

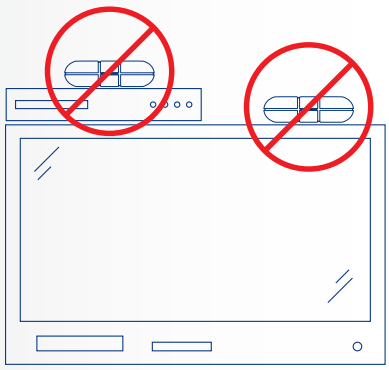


Fig. 02

1. Introduction

Congratulations on the purchase of your new LaCinema Rugged HD! The portable LaCinema Rugged HD plugs directly into a wide array of audio/visual equipment for instant playback of stored home movies, music or photos. And with high-quality video and quality audio, there's no compromise on performance.

To get started, use your Mac or PC to transfer your movies, music and photos to the LaCinema Rugged HD. Then, simply connect the LaCinema Rugged HD to your TV and use the included remote to easily navigate through the menus to listen to music, view photos or watch movies.

The LaCinema Rugged HD allows you to choose from MPG, AVI, MP4, MKV, WMV, ISO, VOB, IFO, ASF, TS, TP, TRP, MTS, M2TS, and DAT video formats for easy playback.

Quick Links

Click a topic:

- Uploading Multimedia Files
- Connecting the LaCinema Rugged HD to Your TV
- Playing Multimedia Files

1.1. Minimum System Requirements

1.1.1. Windows Users

- 500MHz Intel Pentium II processor or later
- Windows 2000, XP or Vista
- 256MB RAM
- USB interface port
- Internet connection (for downloading updates)

1.1.2. Mac Users

- G4 or later, or Intel Core Duo
- Mac OS X 10.3
- 256MB RAM
- USB interface port
- Internet connection (for downloading updates)

1.2. Supported Formats

Video Codecs

- MPEG-1
- MPEG-2
- MPEG-2 HD
- MPEG4 Part 2 ASP
- XviD
- VC-1
- H.264
- WMV9

Video File Types

- MPG
- MPEG
- MP4
- AVI
- ISO
- VOB
- IFO
- WMV
- MKV
- TP
- TRP
- TS
- ASF
- DAT
- MTS
- M2TS

Subtitles

- SRT
- SUB
- SMI

Photo File Types

- PNG
- GIF
- BMP
- JPEG (except Progressive JPEG)
- HD-JPEG

Audio

- MP3
- WMA
- WAV
- OGG
- AAC**
- AC3
- MP4
- PCM

Playlists

- M3U
- PLS

Video Outputs

- Composite video: NTSC/PAL
- HDMI

Audio Outputs

- Dual Stereo analog audio (left and right)
- Optical SPDIF

* Mac OS: DVD Video function is supported via VOB / IFO (Video_TS folder). DVD ISO file size cannot exceed more than 4GB. FAT32 / MS-DOS file system does not support file sizes higher than 4GB. Do not format in HFS+ file system as it is not supported.

** Supports iTunes encoded (m4a) and non-DRM protected purchased songs.

1.3. Box Content

Your LaCinema Rugged HD package contains the system tower and an accessories box containing the items listed below.

1. LaCinema Rugged HD
2. Remote control
3. 2 x AAA batteries
4. Video composite + stereo cable
5. HDMI cable
6. USB cable
7. External power supply
8. Quick Install Guide
9. LaCie Utilities CD-ROM (with detailed User Manual and software)

IMPORTANT INFO: Please save your packaging. In the event that the drive should need to be repaired or serviced, it must be returned in its original packaging.

1.4. Languages

Supported Languages

- English
- French
- German
- Italian
- Dutch
- Russian
- Swedish
- Spanish

Please check the LaCie website for a complete list of supported languages.

1.5. Views of the LaCinema Rugged HD

1.5.1. Front View

1. Disk status LED – Flickering light indicates disk activity.
2. Infrared receiver – Receives the infrared signal from the remote control. Make sure the receiver is not obstructed.

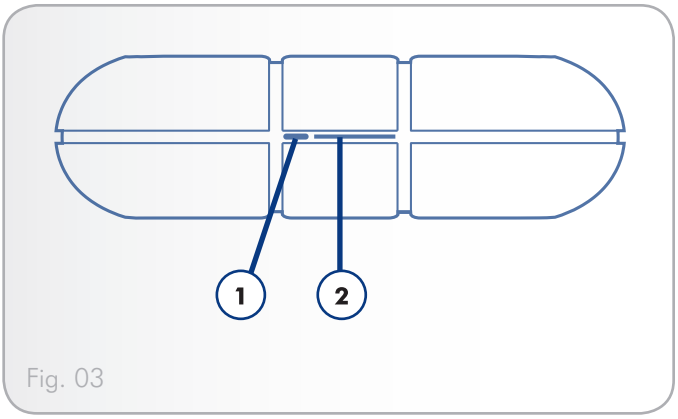


Fig. 03

1.5.2. Rear View

1. Power supply connector
2. USB port
3. Optical Audio S/PDIF
4. Video composite + stereo connector
5. HDMI connector

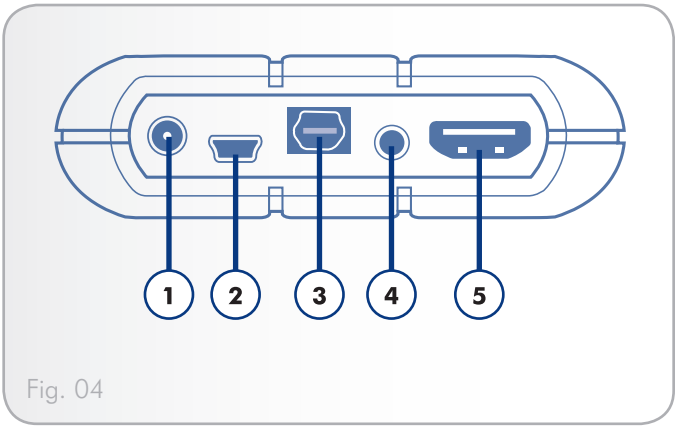


Fig. 04

1.6. Cables and Connectors

1.6.1. A/V (Audio/Video) Cables

The A/V cables provide the audio and video signals to your stereo and TV. The LaCinema Rugged HD supports the A/V standards shown below:

1. Composite video/stereo audio – This is the most standard video connection (yellow) as well as left (white) and right (red) stereo audio inputs. If your TV only has a SCART connector, you can purchase an adapter from your local retailer that will allow you to connect the composite video/stereo audio plugs to the SCART connection.
2. HDMI (High-Definition Multimedia Interface) – This is the best audio/video method for connecting the LaCinema Rugged to HDTVs.

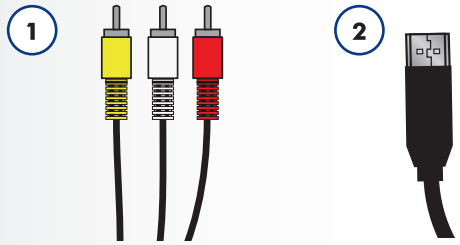


Fig. 05

1.6.2. USB Cable

USB is a serial input/output technology for connecting peripheral devices to a computer or to each other. Hi-Speed USB 2.0 is the latest implementation of this standard, and it provides the necessary bandwidth and data transfer rates to support high speed devices such as hard drives, CD/DVD drives and digital cameras.

Hi-Speed USB 2.0 Benefits

- Backwards compatibility: Hi-Speed USB 2.0 works with the original USB specifications.
- Hot-pluggable: no need to shut down or restart your computer when adding or removing devices.

Included USB Cable

Your LaCinema Rugged HD is shipped with a Hi-Speed USB 2.0 cable, to ensure maximum data transfer performance when connected to a Hi-Speed USB 2.0 port. The cable will also work when connected to a USB port, but drive performance will be limited to USB 1.1 transfer rates.

Fig. 06 - USB Cable Ends

TECHNICAL NOTE: To achieve Hi-Speed USB 2.0 data transfer rates you need to be connected to a Hi-Speed USB 2.0 host interface. Otherwise, transfer rates will be limited to USB 1.1 speeds.

2. Uploading Multimedia Files

2.1. Connecting the LaCinema Rugged to Your Computer

1. Connect the USB cable to the LaCinema Rugged and to your computer (*Fig. 07*).
2. If your computer USB port does not provide enough power, you may need to connect the power supply which turns on the LaCinema Rugged.

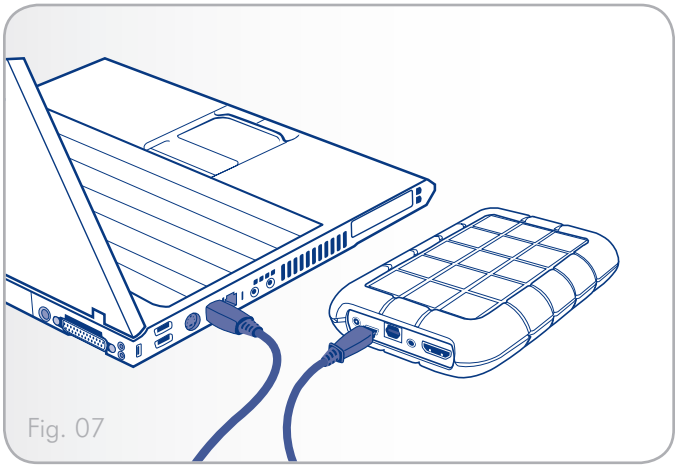


Fig. 07

PC Users:

3. The LaCinema Rugged icon will appear on your computer (on the desktop for Mac users, and in the My Computer folder for Windows users) after a few seconds.

Proceed to section *2.2. Transferring Files to the LaCinema Rugged HD*.

Mac Users:

3. Since the drive is preformatted as an NTFS volume for use on Windows computers, you will need to reformat the drive before it can be properly used on your Mac. See section *6. Reformatting the LaCinema Rugged HD* for instructions.

Once the drive has been formatted in HFS+ or FAT32, proceed to section *2.2. Transferring Files to the LaCinema Rugged HD*.

2.2. Transferring Files to the LaCinema Rugged HD

2.2.1. Uploading Multimedia Files

When the LaCinema Rugged HD is recognized by your computer, you can start adding your music, photos and videos. To add files, simply drag and drop the appropriate files and folders. Organize folders any way you want. However, in order for the files to be correctly classified on your TV, files should be properly categorize according to file type (i.e., music in the Music folder) (see *Fig. 08*).

To remove files from their folders, simply drag them to the Trash or the Recycle Bin.

After transferring files, make sure to safely disconnect the LaCinema Rugged and its power supply. For details, see *2.3. Disconnecting Your LaCinema Rugged HD*.

IMPORTANT INFO: If you want to remove files from the LaCinema Rugged HD, you must empty the Trash or Recycle Bin after placing the files there. Otherwise, the files will still have a reference and occupy hard drive space.

2.2.2. Data File Storage

You can also use your LaCinema Rugged HD to store standard data files. Just create a separate folder (such as "Backup") on the drive for storage and simply drag and drop files into it.

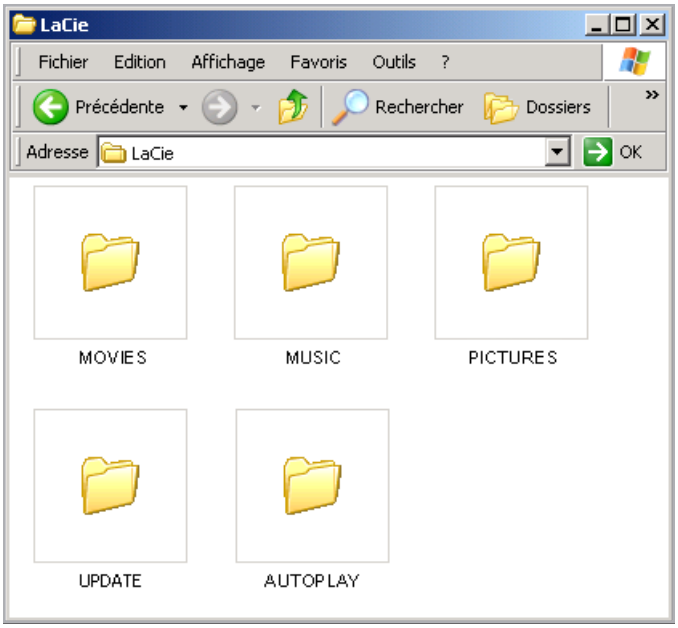


Fig. 08

2.3. Disconnecting Your LaCinema Rugged HD

External USB devices feature "plug & play" connectivity, which means that your drive can be connected and disconnected while the computer is running. To prevent failures, however, it is important to follow these steps when disconnecting your LaCie hard drive.

2.3.1. Windows Users

From the System Tray (located in the lower right-hand side of your screen), click the Eject icon (a small green arrow over a hardware image) (*Fig. 09*).

A message will appear, listing the devices the Eject icon controls (it should say, "Safely remove..."). Click on the LaCie hard drive in this prompt.

This message will appear: "Safe to Remove Hardware" (or similar). It is now safe to disconnect the device.

Fig. 09 - Windows Users

2.3.2. Mac Users

Drag the LaCinema Rugged drive icon to the trash (*Fig. 10*). (The icon pictured below is a generic USB device icon. Your drive may be represented by an icon that looks like the drive itself.)

When the icon disappears from the desktop, the drive can be disconnected.

Fig. 10 - Mac Users

3. Connecting the LaCinema Rugged HD to Your TV

The LaCinema Rugged HD can be connected to your television only or to your television and to your stereo.

3.1. Power Connection

Connect the external power supply to the LaCinema Rugged and to a grounded electrical outlet (*Fig. 11*)

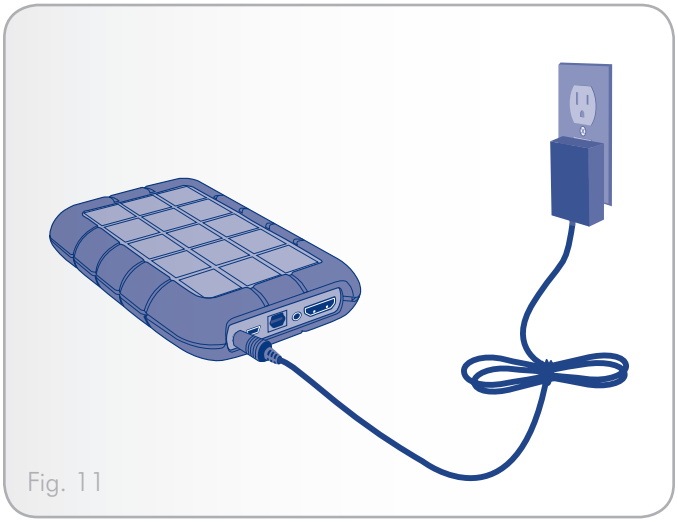


Fig. 11

3.2. Audio/Video Connection

3.2.1. Composite Video & Stereo Audio Cable

To connect the LaCinema Rugged to TV via a stereo audio and composite video cable, power on the LaCinema Rugged as described in section *3.1. Power Connection* and follow the diagram below.

IMPORTANT INFO: The LaCinema Rugged HD cannot be connected to a TV and computer at the same time.

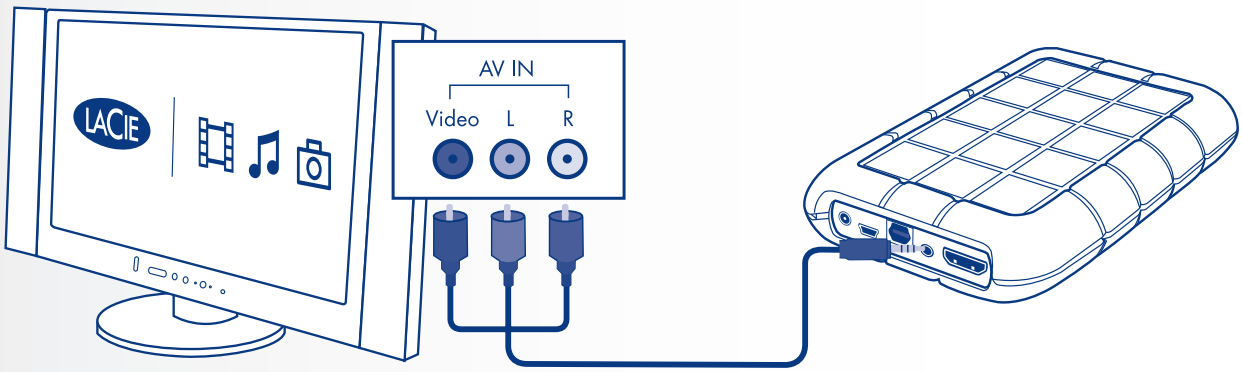


Fig. 12

3.2.2. HDMI Video Cable

To connect the LaCinema Rugged to a TV via HDMI video, power on the LaCinema Rugged as described in section *3.1. Power Connection* and follow the diagram below.

Once connected, press the Setup button and select the Video Out menu in order to adjust, if necessary, the video output resolution of the product to match your TV's resolution from 720p to 1080p.

IMPORTANT INFO: By default your LaCinema Rugged is set to HDMI video mode. **To switch to Composite Video Out, mode, turn on the LaCinema Rugged using the power button on the remote control and then press the Info button (*Fig. 13*).**

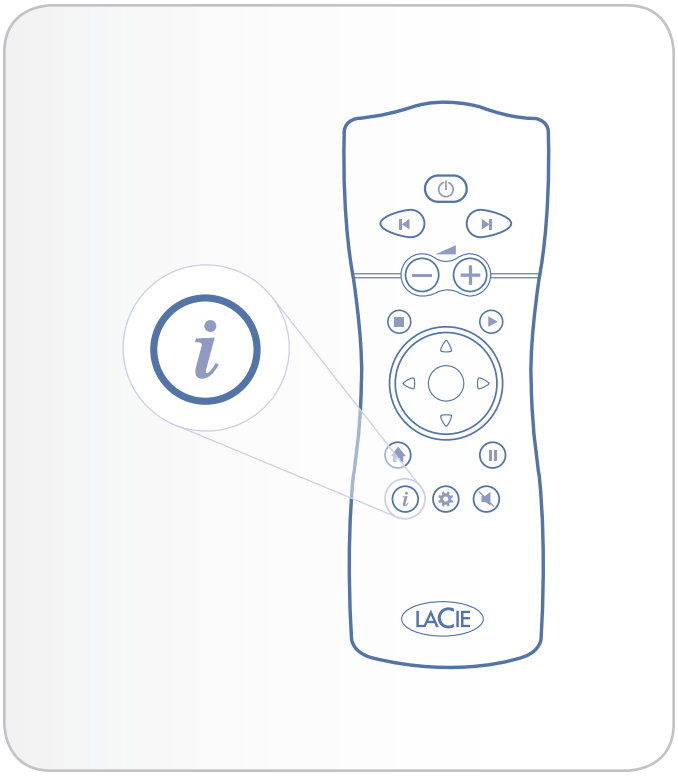


Fig. 13

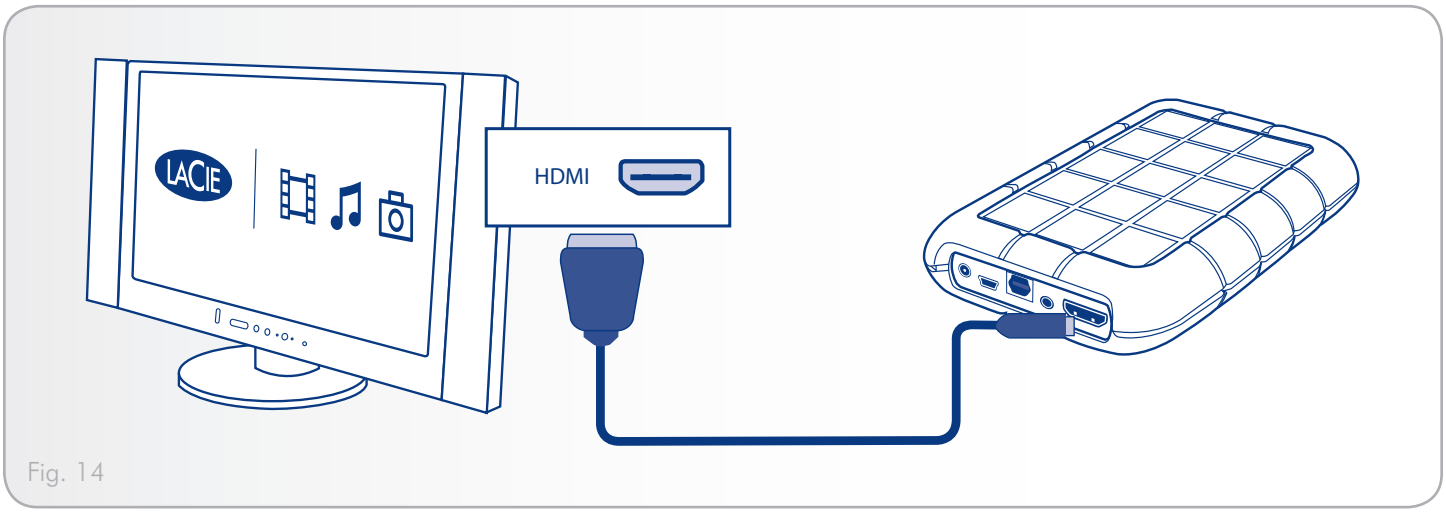


Fig. 14

3.2.3. Optical Connection

The cable allows you to connect the LaCinema Classic to a Digital Audio amplifier. Power on LaCinema Rugged as described in section *3.1. Power Connection* and follow the diagram below.

IMPORTANT INFO: Make sure that you have enabled SPDIF Audio in the setup menu instead of the default analog audio. See section *5.6.2. Audio Settings*.

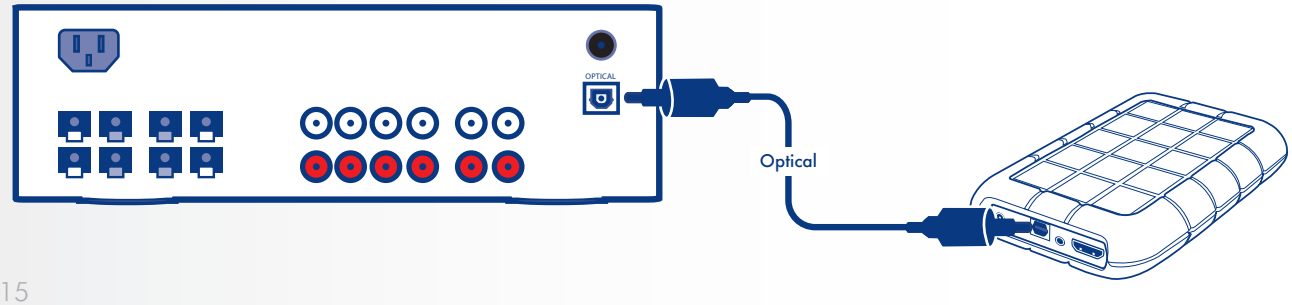


Fig. 15

4. Using the Remote Control

Some of the buttons of the remote control have different functions or no function at all depending on the type of file you are viewing. This chapter discusses the button functions for each type of file (movies, photos and music) and battery installation.

4.1. Battery Installation

The remote control uses two AAA batteries. The batteries are not pre-installed, so you will need to install them before you can use the remote control.

To install the batteries:

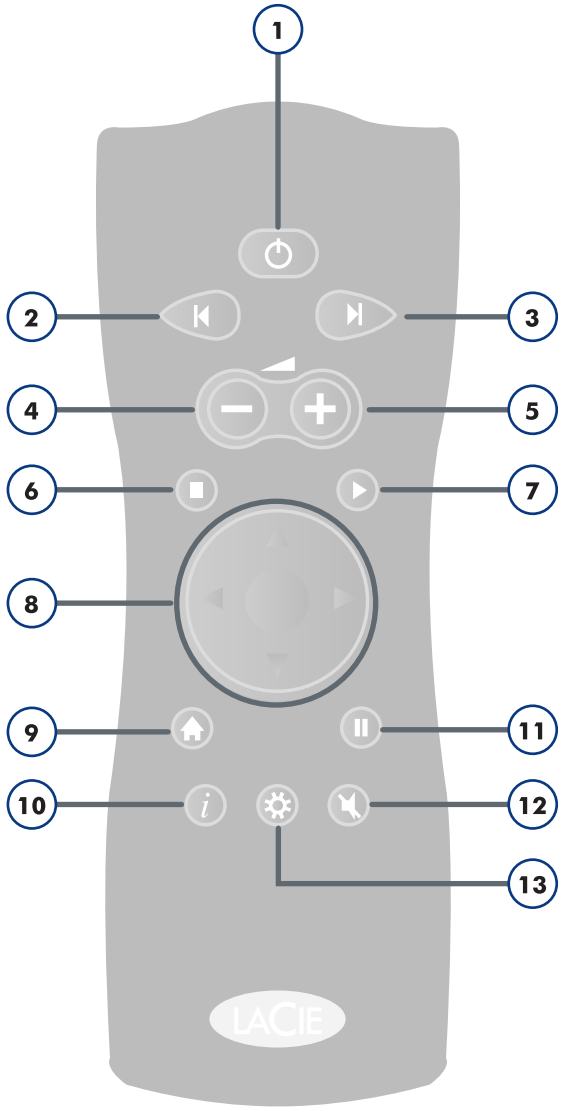
1. Remove the battery compartment cover.
2. Load the batteries onto the battery compartment. Position the batteries so that the "+" symbols on the batteries face the same direction as the "+" symbols on the battery compartment.
3. Slide the battery compartment cover back into the remote.

IMPORTANT INFO: If you will not be using the remote control for an extended period of time, LaCie recommends that you remove the batteries.

4.2. Remote Control Key Index

The LaCinema Rugged HD's remote control allows you to control the LaCinema Rugged HD while its connected to your TV or home theatre center.

Button	Function
1. Power	Power on/off
2. Previous	Back to previous track
3. Next	Skip to next track
4. Volume down	Adjust volume down
5. Volume up	Adjust volume up
6. Stop	Stop the current file playback
7. Play / Select	Play selected file / confirm selection
8. Direction	✦ Right and left buttons: navigate in the menu ✦ Up and down buttons: scroll in the list
9. Home / Now playing	Back to main menu / go to "now playing" music track
10. Info / video OUT selection	Display info and on screen menu, or to change video OUT setting
11. Pause	Pause playback
12. Mute	Turn off sound output
13. Setup	Enter setup menu



5. Playing Multimedia Files

The following sections provide an overview of the different menu options of the LaCinema Rugged HD while it is connected to your TV.

When you first power on the LaCinema Rugged HD, the Main Menu appears after a few seconds. From this menu, you can choose from four different media:

✦ Movies	*5.1. Movies Menu*
✦ Music	*5.2. Music Menu*
✦ Photos	*5.3. Photos Menu*
✦ All Media	*5.4. Browser Menu*

The Main Menu additionally shows an icon for the Settings Space, where you can modify system parameters. Refer to section *5.6. Setup Menu* for details.

TECHNICAL NOTE: The LaCinema will perform a hard disk scan. The duration of the scan will depend on the number of files on the disk.

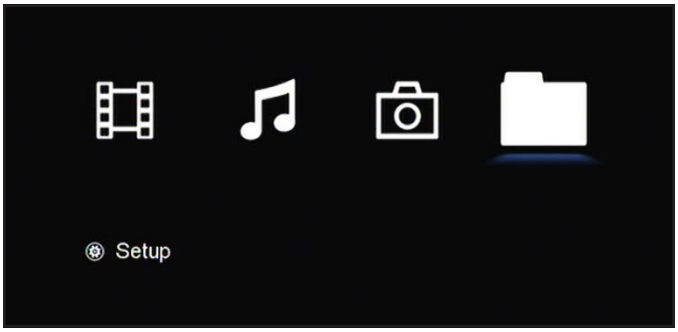


Fig. 16

5.1. Movies Menu

You can scroll through the menus using the navigation buttons. To confirm your choice and enter a menu, press the Play button.

This menu will display all of the video files that you have uploaded to your LaCinema Rugged HD.

Only files recognized as movie files will be displayed. Music and photo files will not be displayed. To view all file types, select the Browser menu.

You can scroll through the list of movie files and folders using the Up and Down buttons, Right button to open a folder and Left to move to upper folder level.

To confirm your choice, press the Play button.

A loading animation will appear while the movie is being analyzed to ensure optimum playback experience.

TECHNICAL NOTE: Movie loading can take up to 15 seconds depending on file length and encoding parameters.

During the file playback, you can retrieve movie information and adjust several playback parameters. Press the *i* button to display or exit the on-screen menu. For setup, press the Setup key on the remote.

5.1.1. File information

The information screen gives you main movie and playback information (*Fig. 19*). Press the *i* button to display or exit the on-screen menu.

IMPORTANT INFO: The LaCinema Rugged HD is not designed, intended or may be used to violate any one's copyright or other IP (Intellectual Property) rights. Each LaCinema Rugged HD user may only use their LaCinema Rugged HD in conjunction with materials legally owned or licensed by such user, and only to the extent that such ownership or license rights permit such use.

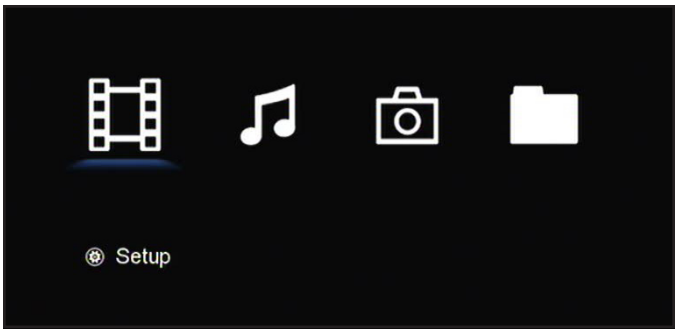


Fig. 17

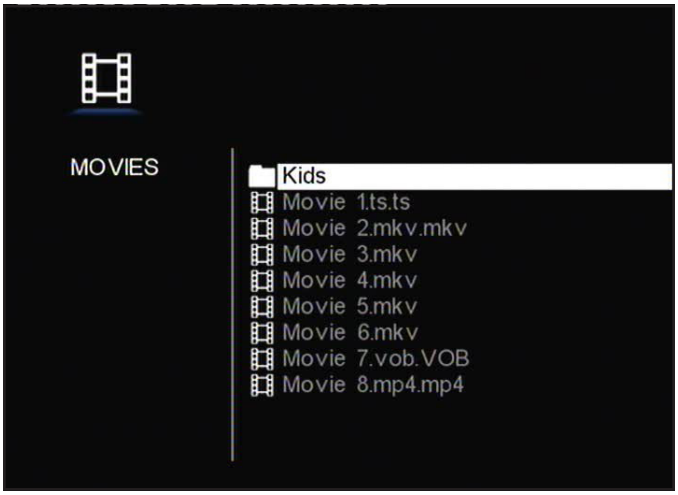


Fig. 18

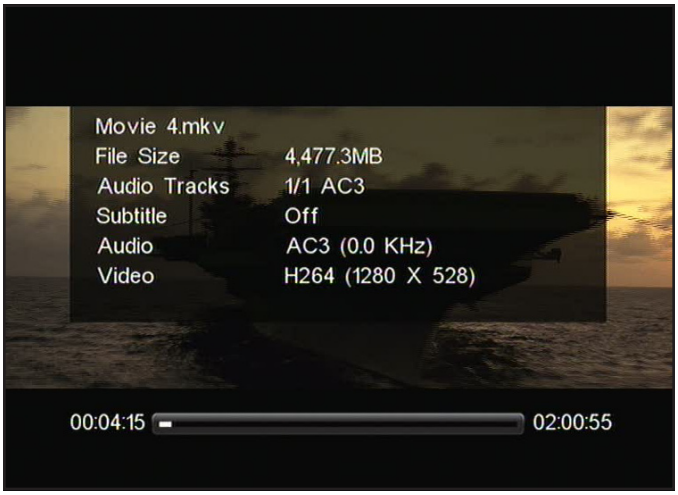


Fig. 19

5.1.2. Auto Bookmark

If a movie has been stopped before its end and is played back again later on, a message will ask whether to resume from the last stop position or to start from the beginning (*Fig. 20*). The last five movies will be kept in memory for future playback resumption.

Fig. 20

5.1.3. Fast-forwarding and Rewinding

When you press and hold down the Left or Right button, a progress bar will appear (*Fig. 21*). Click the Left or Right button repeatedly to increase the speed of the fast-forward or rewind.

Fig. 21

5.1.4. Video Setup

You can modify video parameters while watching a movie by clicking on the Setup button on the remote control (*Fig. 22*). Use the Up and Down buttons to navigate in the menu, and the Right and Left buttons to modify a parameter. To close the menu, press the Setup button.

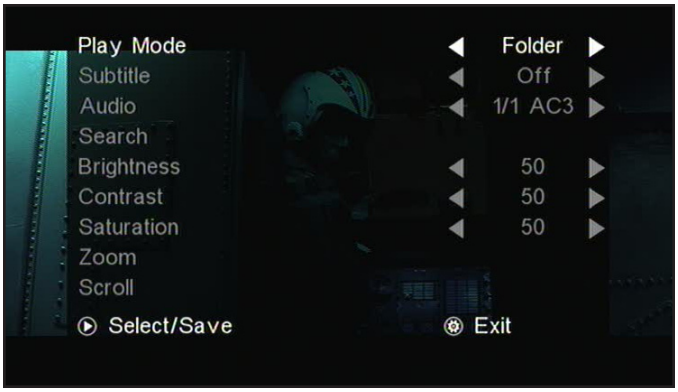


Fig. 22

Video Setup: Search

This feature will display a progress bar and will speed up the display to enable easy scanning (*Fig. 23*).

Fig. 23

Video Setup: Zoom

This feature allows you to zoom into a video. Once the feature has been selected, use the Up and Down buttons to zoom in or out (*Fig. 24*).

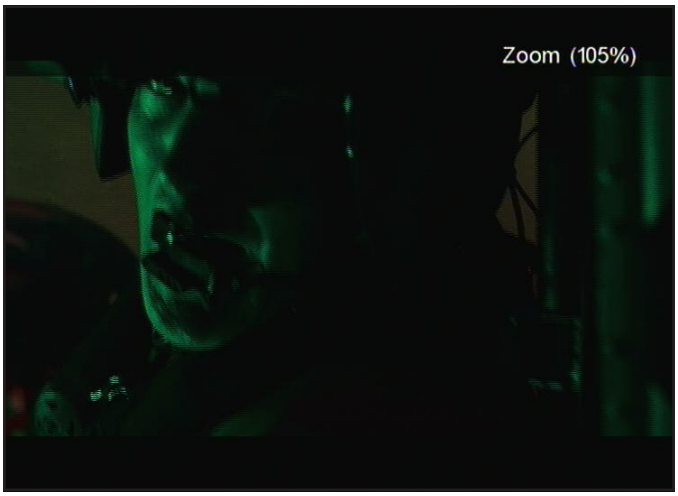


Fig. 24

Video Setup: Scroll

This feature allows you to pan around once you have zoomed into a video. Use the Up, Down, Left, and Right buttons to pan (*Fig. 25*).

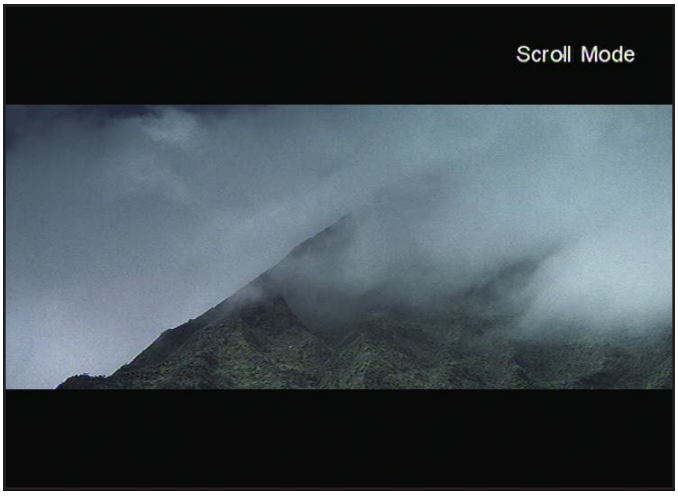


Fig. 25

5.2. Music Menu

You can scroll through the menu using the navigation buttons. To confirm your choice and enter a menu, press the Play button.

This menu will display all of the audio files that you have uploaded to your LaCinema Rugged HD. Only files recognized as music files will be displayed. Movies and photo files will not be displayed. To view all file types, select the Browser menu.

You can scroll through the list of music tracks and folders using the Up and Down buttons, Right button to open a folder and Left to move to upper folder level. To confirm your choice, press the Play button.

During the file playback, you can adjust several playback parameters. Press the Setup button to display or exit the on-screen menu (*Fig. 28*).

Screensaver

After one minute of music playback, a screensaver will appear. Press the Play button to display the Music menu.

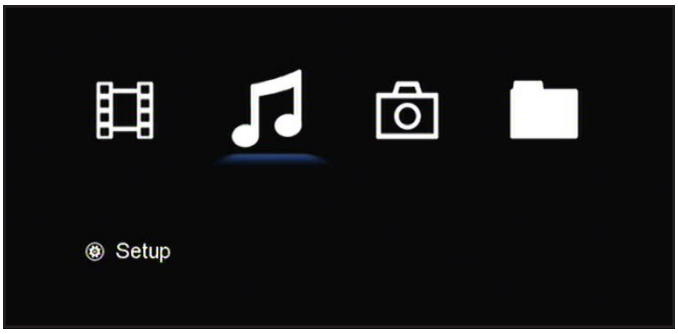


Fig. 26

Fig. 27

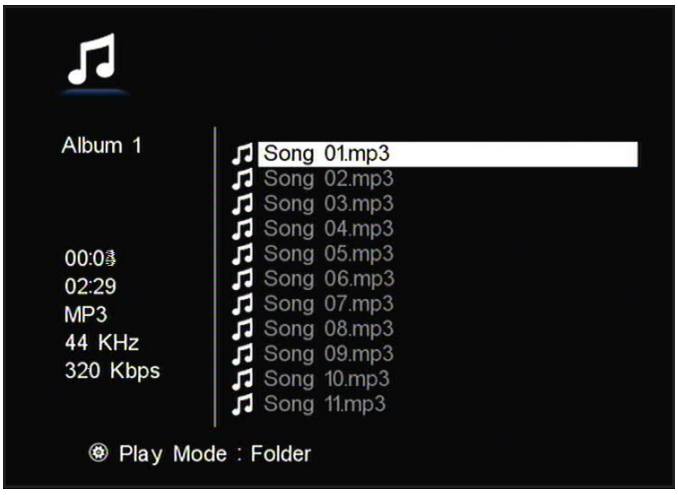


Fig. 28

5.3. Photos Menu

You can scroll through the menu using the navigation buttons. To confirm your choice and enter a menu, press the Play button.

This menu will display all of the image files that you have uploaded to your LaCinema Rugged HD. Only files recognized as image files will be displayed. Movies and music files will not be displayed. To view all file types, select the Browser menu.

You can scroll through the list of photos and folders using the Up and Down buttons, Right button to open a folder and Left to move to upper folder level. To confirm your choice, press the Play button.

To change the settings of the Photos Menu, please go to the Settings menu.

5.3.1. Photos Setup

You can modify photos parameters while viewing a photo by clicking on the Setup button on the remote control (*Fig. 31*). Use the Up and Down buttons to navigate in the menu, and the Right and Left buttons to modify a parameter. To close the menu, press the Setup button.

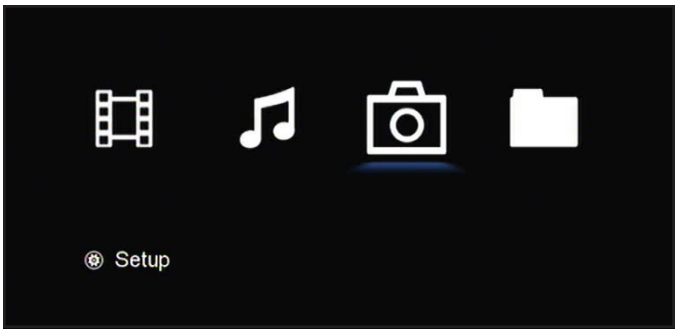


Fig. 29

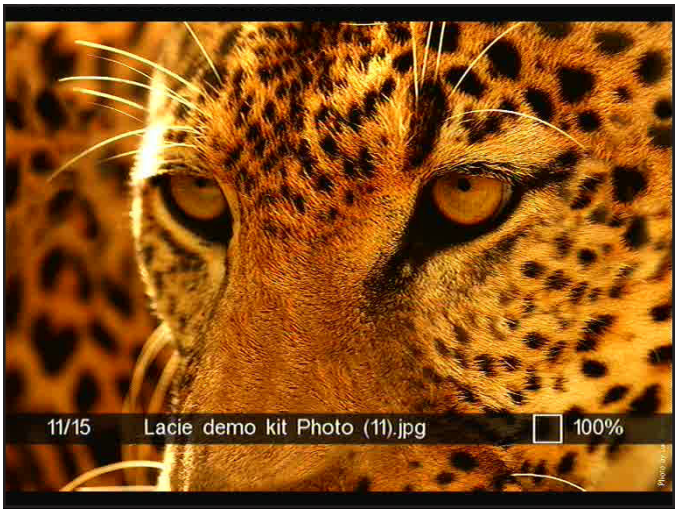


Fig. 30

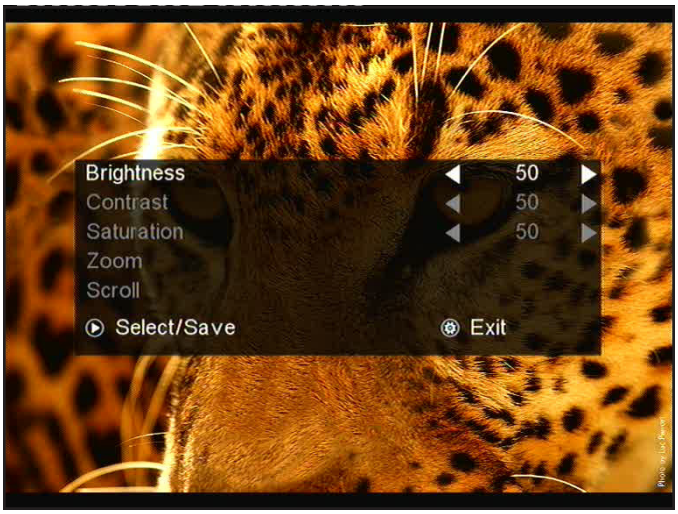


Fig. 31

5.4. Browser Menu

This menu will display all the multimedia files (not categorized by Movies, Music, etc.) that you have uploaded to your LaCinema Rugged HD.

Scroll through the menu using the navigation buttons. To confirm your choice and enter a menu, press the Play button.

You can scroll through the list of photos and folders using the Up and Down buttons, Right button to open a folder and Left to move to upper folder level. To confirm your choice, press the Play button (*Fig. 33*).

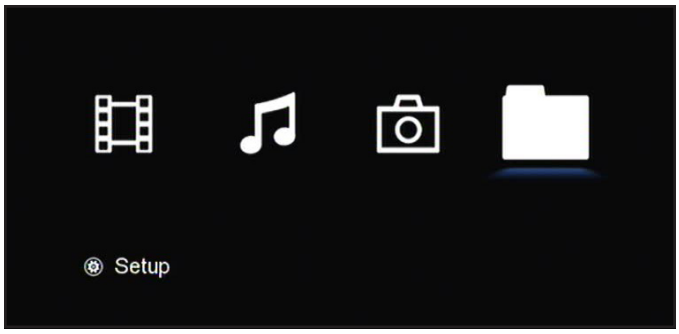


Fig. 32

5.5. Autoplay Mode

In Autoplay mode, your movies, photos or audio files will be played automatically.

To set up this feature, connect the LaCinema Rugged HD to your computer and double-click its icon when it mounts on your desktop (Mac users) or Computer/My Computer (PC users). Open the Autoplay folder, and place the file(s) you would like to begin playing automatically in the proper folder (i.e. audio files in the Music folder).

Then, press the Setup button on the remote control, choose Parameter, and then Autoplay. Choose the either mode (Movies or Photos, keeping in mind that Audio is located in the Photos folder). Exit the menu and power off the LaCinema Rugged HD.

Then, when you turn on the LaCinema Rugged HD, the files located in the folder you selected (Movies or Photos) will automatically begin playing.

TECHNICAL NOTE: Once you have activated Autoplay mode, the LaCinema Rugged HD will stay in that mode until you deactivate it using the Setup Menu.

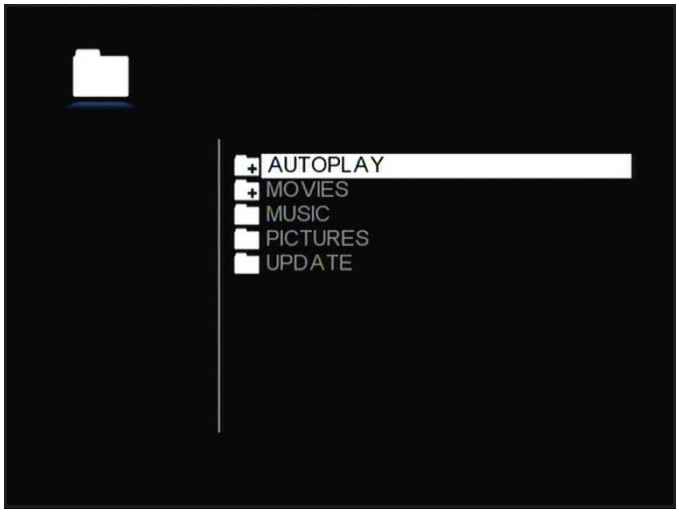


Fig. 33

5.6. Setup Menu

The LaCinema Rugged HD Setup menu will help you to properly configure and customize your device. Access it at any time by clicking the

Scroll through the Setup menu using the Up and Down buttons (*Fig. 34*).

To display the available options of a setup category, press the Right button. To confirm your choice, press the Play button. All changes are automatically saved.

Press the Setup button to display the main menu on the screen. When the setup menu is shown, the playback will be automatically paused.

Press the Up and Down buttons to select the desired setup, then press the Play button to confirm. Press the Left and Right buttons to select the submenu, then press Play.

To select another option, press the Left button to go back to an previous menu. Press the Setup button again to exit the setup menu from the screen.

Fig. 34

5.6.1. Video Settings

Video Out

Select Video Out, then choose from the following options (*Fig. 35*) depending on your television capabilities and the method you used to connect the LaCinema Rugged HD to your TV (note that HDMI 480p is the default setting):

- Composite/S-Video
- HDMI 480p
- HDMI 1080i
- HDMI Auto
- HDMI 720p
- HDMI 1080p

Fig. 35

TV Standard

Depending on your television's setup, choose either (*Fig. 36*) (note that PAL is the default setting):

- NTSC
- PAL

TV Type

Choose either (*Fig. 37*) (note that 4:3 is the default setting):

- 4:3: Select this option when using a standard 4:3 TV. When you play a widescreen (letterbox) movie, there will be margins on the upper and lower sides of the screen.
- 16:9 Wide: Select this option when using a widescreen 16:9 TV.

Display Size

Depending on your television's setup, choose either (*Fig. 38*):

- Original (Letterbox): Select this option when using a standard 4:3 TV. When you play a widescreen (letterbox) movie, there will be margins on the upper and lower sides of the screen.
- Pan & Scan: Select this option when using a standard 4:3 TV. The picture will be adjusted to the height of the screen.
- Fullscreen

Fig. 36

Fig. 37

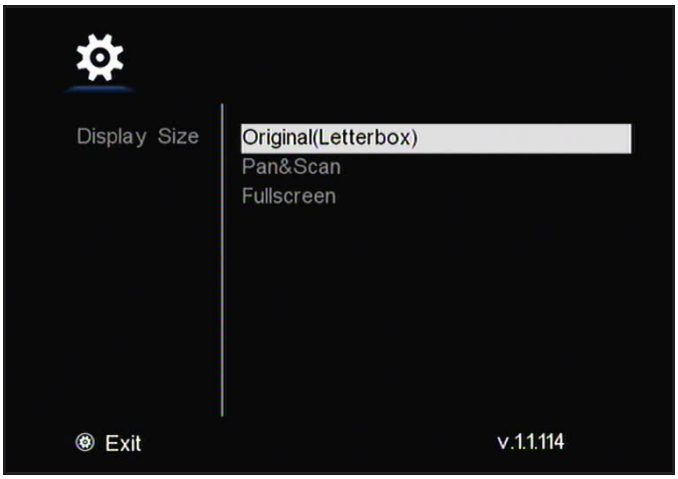


Fig. 38

Video Play Mode

Choose from the following (*Fig. 39*):

- File: Selected movie only will be played back
- Repeat: Selected movie will be played repeatedly
- Folder: All files in the selected folder will be played repeatedly in sequence (default)

5.6.2. Audio Settings

SPDIF

Choose from the following (*Fig. 40*):

- Downmix: Converts Dolby Digital audio signal (multichannel, AC-3) into Dolby Stereo (2ch)
- Passthrough: Allows DTS pass-through to compatible audio amplifier via S/PDIF connection (optical)

Audio Channels

Choose either (*Fig. 41*):

- 2 channels
- 5.1 channels

Fig. 39

Fig. 40

Fig. 41

Music Play Mode

Choose from the following (*Fig. 42*):

- File: Plays selected audio file only
- Repeat: Plays back selected song repeatedly
- Folder: Plays back all files in the selected folder in sequence
- Shuffle: Plays back all files in the selected folder randomly

5.6.3. Parameters

Screen Saver

Set the screen saver to activate after (*Fig. 43*):

- Off
- 5min
- 10min
- 30min

Slideshow Effect

Choose from the following (*Fig. 44*):

- Off (default)
- Fade in/out

Fig. 42

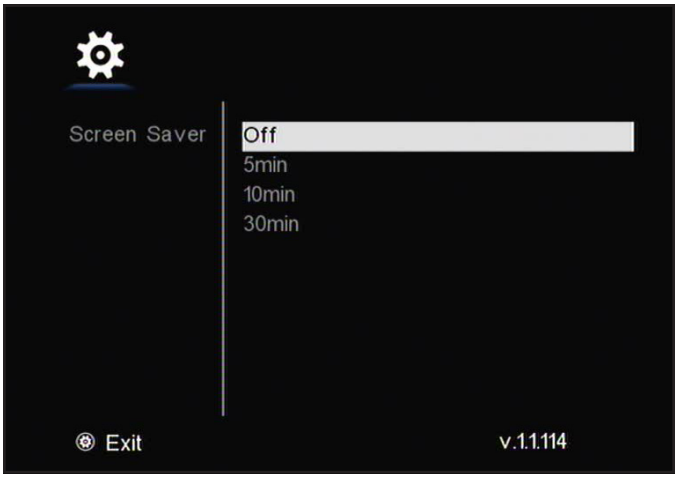


Fig. 43

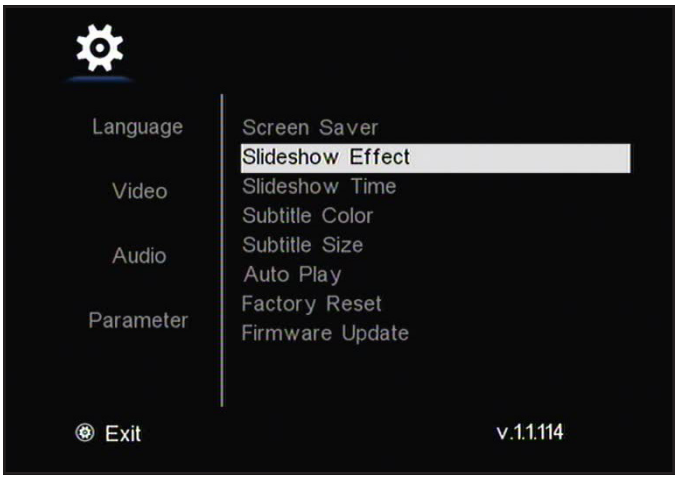


Fig. 44

Slideshow Time

Set the amount of time for a photo to be displayed during a slide-show. Choose from (*Fig. 45)*:

- Off
- 10sec (def)
- 15sec
- 20sec
- 25sec
- 30sec
- 45sec
- 60sec

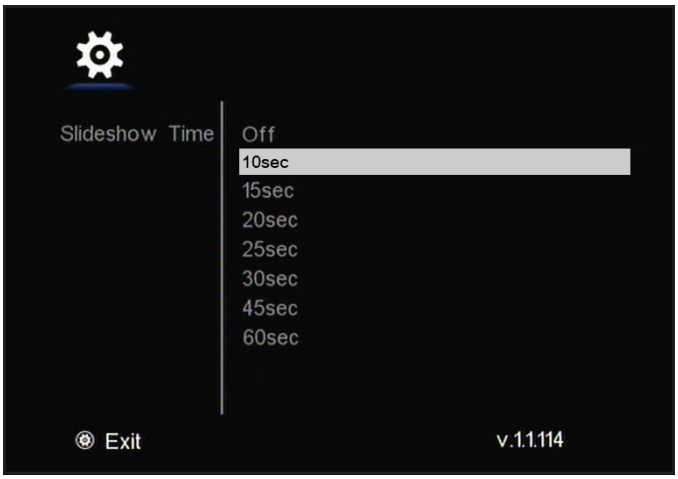


Fig. 45

Subtitle Color

Choose from the following (*Fig. 46)*:

- White (default)
- Yellow
- Blue
- Gray

Fig. 46

Subtitle Size

Choose from the following (*Fig. 47)*:

- Small (default)
- Large
- Off

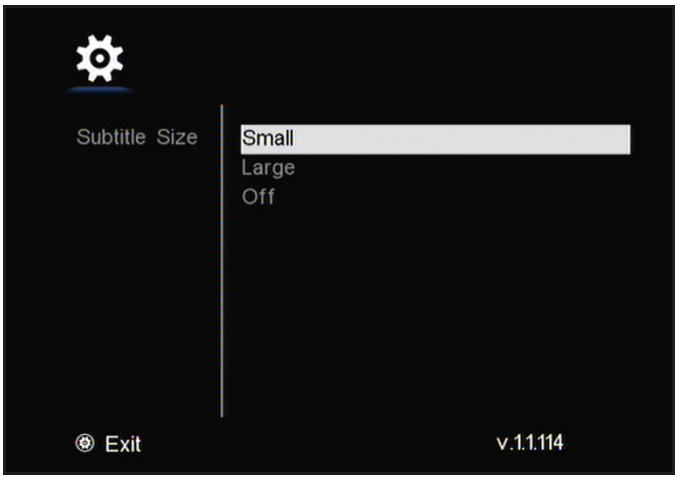


Fig. 47

Auto Play

For a description of the feature, see *5.5. Autoplay Mode*. Choose from the following (*Fig. 48*):

- Off
- Movies
- Photos

Factory Reset

Select this option to reset parameters back to factory setting. Click Yes to confirm (*Fig. 49*).

Firmware Update

- Refer to section *5.7. Firmware Update* for details.

Fig. 48

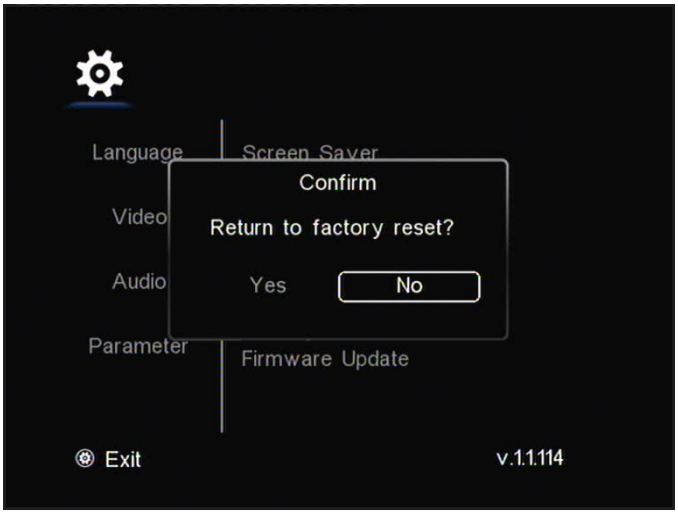


Fig. 49

5.7. Firmware Update

The LaCinema Rugged HD allows you to update its firmware by loading downloaded firmware updates in the Update folder.

To update the firmware:

1. Go to www.lacie.com/support and click on the Downloads link.
2. Select the most recent LaCinema Rugged firmware download. Connect your LaCinema Rugged to your computer. Unzip the file you just downloaded, then, drag it into the Update folder on the LaCinema Rugged. Disconnect the LaCinema Rugged from your computer and connect it to your TV.
3. On the remote control, click the Setup button to access the Settings menu.
4. Navigate to Parameter > Firmware Update.
5. Select Firmware Update, which will detect the file (*Fig. 50*).
6. Select Play and the firmware update will be launched (*Fig. 51*).
7. When the firmware update has completed, the drive will turn off and restart automatically.

CAUTION: Never turn off the LaCinema Rugged HD during the Firmware Update process! Doing so may damage your device. If, for any reason, the procedure fails (e.g. a power failure occurs during the update), you may not be able to use your LaCinema Rugged HD. Please contact your reseller or LaCie Customer Support for more information.

IMPORTANT INFO: Updating firmware will reset parameters to factory defaults. As a result, following a firmware update you may have to reset your video out method in the Settings menu.

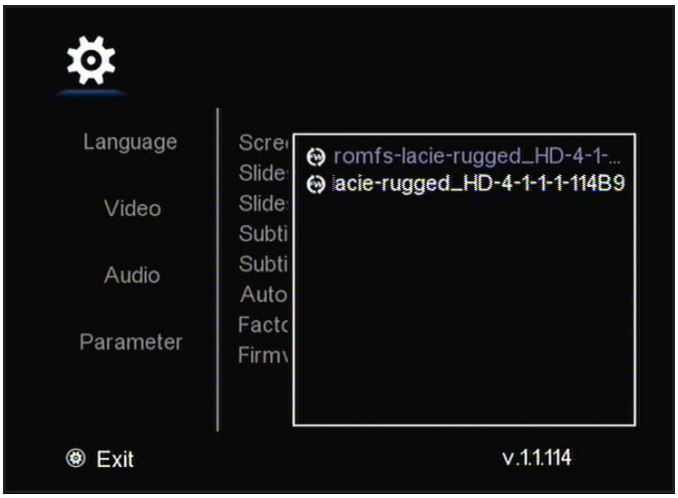


Fig. 50

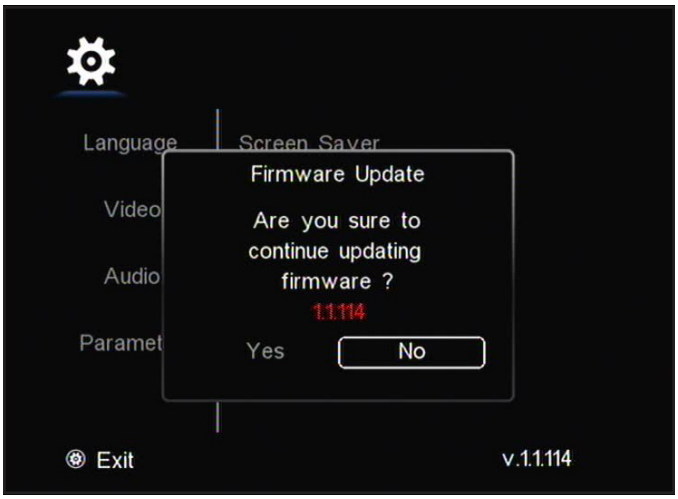


Fig. 51

6. Reformatting the LaCinema Rugged HD

6.1. Windows Users

IMPORTANT INFO: The drive should only be formatted as FAT32 or NTFS. If the drive is formatted in a different format (such as HFS+), files will NOT appear on your television screen.

TECHNICAL NOTE: The FAT32 (MS-DOS) file system is compatible with almost all computers but file size is limited to 4GB.

The process of formatting a drive on a computer running Windows 2000, Windows XP or Windows Vista consists of two steps: (1) installing a signature on the drive, and (2) formatting the drive. These steps will erase anything that is on the disk.

CAUTION: Following these steps will erase everything from the LaCinema Rugged. If you have information that you want to protect or continue to use, back up this information before performing these steps.

1. Connect the drive to the computer via the interface port.
2. Right-click **My Computer** and select **Manage**.
3. From the "Computer Management" window, select **Disk Management** (located below the **Storage** group). See *Fig. 52*.
4. If the "Initialize and Convert Disk Wizard" window appears, click **Cancel**.
5. Windows will list the Hard Disks that are installed on the system. Locate the drive that is represented by the icon. Right-click the icon and select **Initialize**.
6. In the box to the right that says **Unallocated**, right-click and select **New Partition...**
7. On the first page of the "New Partition Wizard," click **Next.** See *Fig. 53*.

continued on next page

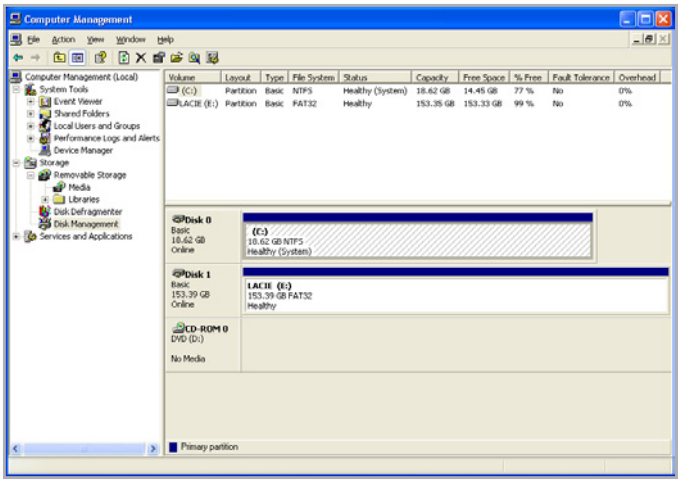


Fig. 52

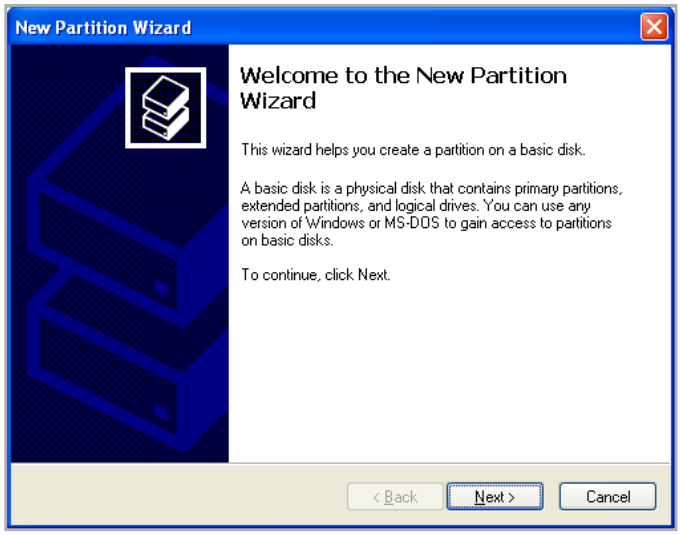

New Partition Wizard
Welcome to the New Partition Wizard
This wizard helps you create a partition on a basic disk.
A basic disk is a physical disk that contains primary partitions, extended partitions, and logical drives. You can use any version of Windows or MS-DOS to gain access to partitions on basic disks.
To continue, click Next.
< Back
Next >
Cancel

Fig. 53

8. Click **Next**.
9. Click **Next**.
10. Click **Next**.
11. Click **Next**.
12. On the Format Partition window, select **Quick Format**. Click **Next**.

IMPORTANT INFO: The drive should only be formatted as FAT32 or NTFS. If the drive is formatted in a different format (such as HFS+), files will NOT appear on your television screen.

13. Click **Finish** to begin the formatting process.
14. Windows Disk Management will format and partition the disk according to your settings (*Fig. 54*), and your drive will appear in **My Computer**, ready to use.

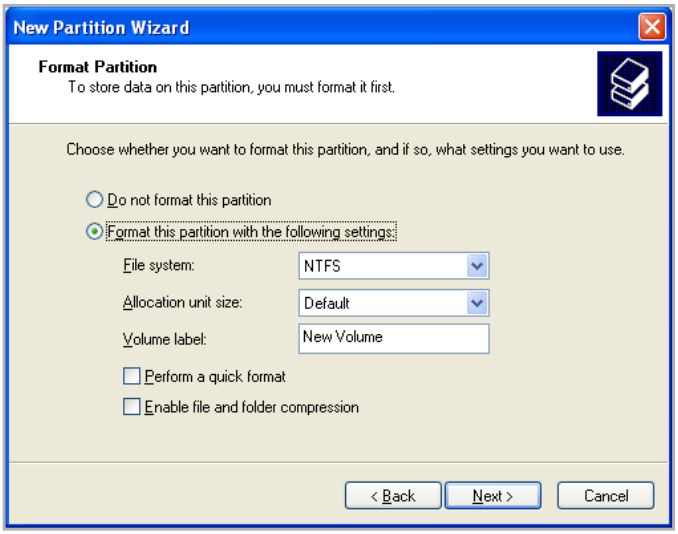

New Partition Wizard
Format Partition
To store data on this partition, you must format it first.
Choose whether you want to format this partition, and if so, what settings you want to use.
Do not format this partition
Format this partition with the following settings:
File system:
NTFS
Allocation unit size:
Default
Volume label:
New Volume
Perform a quick format
Enable file and folder compression
< Back
Next >
Cancel

Fig. 54

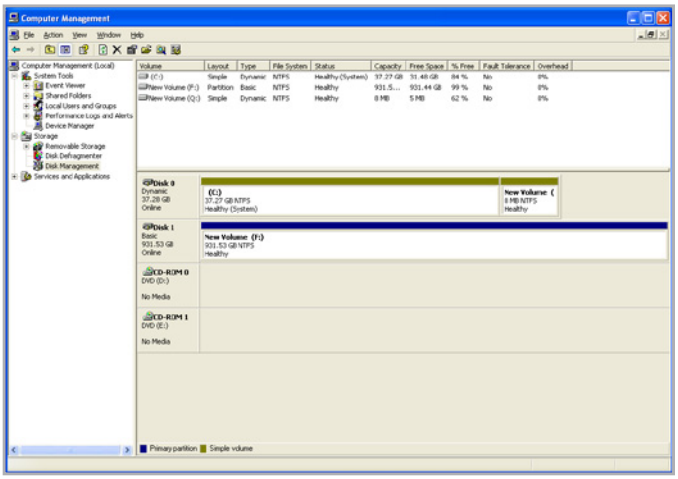


Fig. 55

6.2. Mac Users

CAUTION: Following these steps will erase everything from the LaCinema Rugged. If you have information that you want to protect or continue to use, back up this information before performing these steps.

IMPORTANT INFO: For Mac users, the drive should only be formatted as FAT32. If the drive is formatted in a different format (such as HFS+), files will NOT appear on your television screen.

TECHNICAL NOTE: The FAT32 (MS-DOS) file system is compatible with almost all computers but file size is limited to 4GB.

1. Connect the drive to the computer and turn on the drive.
2. Select Utilities from the Go menu in the Finder menu bar.
3. In the Utilities folder, double-click Disk Utility.
4. The Disk Utility window will open. Select the volume labeled LaCie Hard Disk from the list of available hard disks on the left side of the window.
5. Select the Partition tab.
6. From the Volume Scheme: menu, choose the number of partitions you want to divide the drive into (Mac OS X gives you the option of dividing the drive into at most 16 partitions). You can adjust the size of each partition using the slide bar between the partitions in the Volume Scheme: area.
7. In the Volume Information section, enter a name for each volume (partition), and choose MS-DOS (FAT) from the drop-down menu.
8. Once you have finalized the volume options, click Partition. Click Partition again when the alert message appears to continue.
9. Mac Disk Utility will format and partition the disk according to your settings, and your drive will be ready to use.

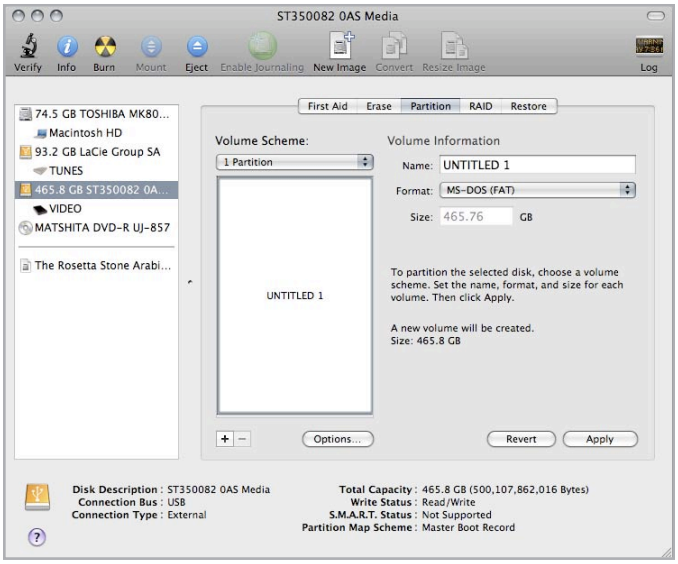


Fig. 56

7. Technical Information

7.1. HD File Format Compatibility

The LaCinema Rugged HD is fully compatible with the hi-def formats below, and can play any video encoded with these compression formats:

MPEG-2 HD	Xvid	H.264 (MPEG-4 P10)
MPEG-4.2	WMV9	VC-1

7.2. Optimizing Data Transfers

Data transfers are the flow of data that accomplishes a task, usually related to moving data from storage to computer RAM, or between storage devices. With external drives, such as the LaCinema Rugged HD, the data is transferred from the drive to the computer via the USB interface. The data is fed from the drive through the USB port on the drive, and passes to the computer through the USB host-bus adapter interface.

USB

To utilize the enhanced Hi-Speed USB 2.0 performance, your computer must be equipped with a Hi-Speed USB 2.0 host bus adapter card (either sold separately, or integrated by your computer's manufacturer) and the appropriate drivers. These host bus adapter cards, which include one or more USB ports, are shipped with special Hi-Speed USB 2.0 drivers that enable the computer to control the card. These drivers must be installed in order for USB 2.0 devices connected to the port to work at their correct speeds.

Computers running Windows XP and Windows Vista automatically manage Hi-Speed USB 2.0 devices and drivers, while Windows 98 SE and Windows Me will require that drivers be installed before a Hi-Speed USB 2.0 device is attached.

Mac OS 9.x does not support Hi-Speed USB 2.0 functionality, and all Hi-Speed USB 2.0 devices will only operate at the original USB specifications. Mac OS 10.2.7 and later supports Hi-Speed USB 2.0. Contact your LaCie reseller or LaCie Customer Support for information about Hi-Speed USB 2.0 PCI or PC Cards, or visit our Web site: www.lacie.com.

8. Troubleshooting

If your LaCinema Rugged HD is not working correctly, please refer to the following checklist to determine the source of the problem. If you have gone through all of the points on the checklist and your LaCinema Rugged still does not work properly, please check the FAQs that are regularly published on our website – www.lacie.com. One of these FAQs may provide an answer to your specific question. You can also visit the downloads page, where the most recent software updates will be available.

If you need further assistance, please contact your LaCie reseller or LaCie Customer Support (see section *9. Contacting Customer Support* for details).

Manual Updates

LaCie strives to give you the most up-to-date, comprehensive user manuals available on the market. It is our goal to provide you with a friendly, easy-to-use format that will help you quickly install and utilize the many functions of your new device.

If your user manual does not reflect the configuration of the product you purchased, please check our website for the most current version of the user manual.

www.lacie.com

8.1. Troubleshooting: Mac Users

Problem	Question	Answer
The drive is not recognized by the computer.	Does an icon for the drive appear on the desktop?	There should be an icon for the LaCie drive on the desktop (unless you've set the Finder preference not to show External disks on the desktop). If the drive does not appear, follow the rest of the Troubleshooting tips to isolate the problem.
	Does your computer's configuration meet the minimum system requirements for use with this drive?	See section *1.1. Minimum System Requirements* for more information.
	Is the drive's power supply connected?	Make sure that the power supply is properly connected (see section *2.1. Connecting the LaCinema Rugged to Your Computer*) and that the outlet the power supply is connected to is working.
	Did you follow the correct installation steps for the specific interface and operating system?	Review the installation steps in section *2.1. Connecting the LaCinema Rugged to Your Computer*.

Problem	Question	Answer
The drive is not recognized by the computer.	Are both ends of the USB cable securely attached?	Only use a USB cable provided by LaCie. Check both ends of the USB cable to make sure they are fully seated in their respective ports. Try disconnecting the cables, waiting 10 seconds, and then reconnecting them. If the drive is still not recognized, restart your computer and try again.
	Is there a conflict with other device drivers or extensions?	Contact LaCie Technical Support for help.
	Does your computer's operating system support the file system?	Check your computer's documentation and see section *6. Reformatting the LaCinema Rugged HD* for more information.
Error messages under Mac OS 10.x.	Did you get an "Error –50" message while copying to a FAT 32 (MSDOS) volume?	When copying files or folders from Mac OS 10.x to a FAT 32 volume, file names with certain characters cannot be copied. These characters include, but are not limited to: ? < > / \ : Check your files and folders to ensure that these types of characters are not being used.
The drive is not running noticeably faster when connected via Hi-Speed USB 2.0.	Are you operating in Mac OS 9.x?	Apple does not support the Hi-Speed USB 2.0 standard under Mac OS 9.x. You will be limited to the slower transfer rates of the original USB standard. For more information, please see section *7.2. Optimizing Data Transfers*.
	Is the drive connected to a standard USB port on your computer?	If your drive is connected to a standard USB port, this is normal. A Hi-Speed USB 2.0 device can only operate at Hi-Speed USB 2.0 performance levels when it is connected directly to a Hi-Speed USB 2.0 port. Otherwise, the Hi-Speed USB 2.0 device will operate at the slower USB transfer rates. For more information, please see sections *7.2. Optimizing Data Transfers* and *1.6. Cables and Connectors*.
	Is the drive connected to a Hi-Speed USB 2.0 port on your computer?	Check to see that the Hi-Speed USB 2.0 drivers for both your host bus adapter and device have been installed correctly. If in doubt, un-install the drivers and re-install them. Also, make sure that you are connected directly to a Hi-Speed USB 2.0 port on your computer.
	Does your computer or operating system support Hi-Speed USB 2.0?	See sections *1.1. Minimum System Requirements* and *7.2. Optimizing Data Transfers* for more information.

8.2. Troubleshooting: Windows Users

Problem	Question	Answer
The drive is not recognized by the computer.	Has the drive been formatted?	Make sure that the drive has been formatted properly. Please see section *6. Reformatting the LaCinema Rugged HD*.
	Does your computer's operating system support the file system?	Check your computer's documentation and see section 6. Reformatting the LaCinema Rugged.
	Is there an icon for the drive in My Computer?	Go into My Computer and look for an icon and drive letter assigned to the LaCie drive. If the drive does not appear, follow the rest of the Troubleshooting tips to isolate the problem. Go into My Computer and look for an icon and drive letter assigned to the LaCie drive. If the drive does not appear, follow the rest of the Troubleshooting tips to isolate the problem.
	Does your computer's configuration meet the minimum system requirements for use with this drive?	See section *1.1. Minimum System Requirements* for more information.
The drive is not recognized by the computer.	Is the drive's power supply connected?	Make sure that the power supply is properly connected (see section *2.2. Transferring Files to the LaCinema Rugged HD*) and that the outlet the power supply is connected to is working.
	Did you follow the correct installation steps for the specific interface and operating system?	Review the installation steps in section *2.2. Transferring Files to the LaCinema Rugged HD*.
	Are both ends of the USB cables firmly attached?	Check both ends of the USB cable to make sure they are fully seated in their respective ports. Try disconnecting the cables, waiting 10 seconds, and then reconnecting them. If the drive is still not recognized, restart your computer and try again.
	Is there a conflict with other device drivers or extensions?	Contact LaCie Technical Support for help.
The drive is not running noticeably faster when connected via Hi-Speed USB 2.0.	Is the drive connected to a standard USB port on your computer?	If your drive is connected to a standard USB port, this is normal. A Hi-Speed USB 2.0 device can only operate at Hi-Speed USB 2.0 performance levels when it is connected directly to a Hi-Speed USB 2.0 port. Otherwise, the Hi-Speed USB 2.0 device will operate at the slower USB transfer rates. For more information, please see sections *7.2. Optimizing Data Transfers* and *1.6. Cables and Connectors*.
	Is the drive connected to a Hi-Speed USB 2.0 port on your computer?	Check to see that the Hi-Speed USB 2.0 drivers for both your host bus adapter and device have been installed correctly. If in doubt, un-install the drivers and re-install them. Also, make sure that you are connected directly to a Hi-Speed USB 2.0 port on your computer. The LaCinema Rugged HD will not work properly when connected to a hub.
	Does your computer or operating system support Hi-Speed USB 2.0?	See sections *1.1. Minimum System Requirements* and *7.2. Optimizing Data Transfers* for more information.

8.3. Troubleshooting: TV/Stereo Connection

Problem	Question	Answer
The drive is connected, but the TV doesn't recognize it.	Have you properly set the video out parameters in the Settings menu?	Using the remote control, click the **Info** button to change from HDMI (default) to Composite Video Out mode.
Checking the firmware version.	How do you know which firmware version your LaCinema Rugged HD is using?	To check which firmware is currently installed on your LaCinema Rugged HD, attach it to your TV and use the remote control to navigate to the Settings menu. The firmware version is displayed in the bottom right corner of the Settings menu.
	How do you get new firmware, and how do you install it?	For a detailed explanation, please see section *5.7. Firmware Update* or go to www.lacie.com.
There is no picture being displayed.	Are all of the cables connected correctly?	Ensure that all of the cables are connected correctly. See section *3. Connecting the LaCinema Rugged HD to Your TV*.
The picture is in black and white or there is no picture being displayed.	Is the LaCinema Rugged HD's Video setting correctly set?	In the event that there is an error with the Video setting, press the **Info** button on the remote control until the correct image is displayed. After the picture is being displayed, go into the Settings menu and select Video. From there, you can select the correct settings. For more information, please see section *5.6.1. Video Settings*.
Optimizing video connections.	What connectivity method will produce the best quality?	For optimal quality and performance, the best video connection is the HDMI cable (included). For more information, please contact your LaCie reseller or LaCie Customer Support.
There is no sound when connecting the LaCinema Rugged HD to a digital stereo.	Have the Audio Settings been adjusted?	When using the A/V cable to connect the LaCinema Rugged HD to a TV, go into the Settings menu and select Audio Settings. From this menu, you will need to select the Analog option instead of Digital.
Viewing photos.	Does it take several seconds to load a picture?	Depending on file size, photos may take several seconds to load properly. Reducing the photo's resolution will reduce the file size, as well, and allow the file to load faster.

9. Contacting Customer Support

Before You Contact Technical Support

1. Read the manuals and review section *8. Troubleshooting*.
2. Try to isolate the problem. If possible, make the drive the only external device on the CPU, and make sure that all of the cables are correctly and firmly attached.

If you have asked yourself all of the pertinent questions in the troubleshooting checklist, and you still can't get your LaCie drive to work properly, contact us at www.lacie.com. Before contacting us, make sure that you are in front of your computer and that you have the following information on hand:

Information	Where to Find Information
1. LaCie hard drive serial number	Located on a sticker at the back of drive or on the original packaging
3. Macintosh/PC model	**Mac users:** Click on the Apple icon in the menu bar and select **About This Mac**. **Windows users:** Right click **My Computer** and select **Properties > General**.
4. Operating system version	
5. Processor speed	
6. Computer memory	
7. The brands and models of other internal and external peripherals installed on your computer	**Mac users:** Click on the Apple icon in the finder bar and select **About This Mac**. Select **More Info...** The Apple System Profiler will launch and will list your internal and external peripherals. **Windows users:** Right click **My Computer** and select **Properties > Hardware.**

9.1. LaCie Technical Support Contacts

LaCie Asia, Singapore, and Hong Kong Contact us at: http://www.lacie.com/asia/contact/	LaCie Australia Contact us at: http://www.lacie.com/au/contact/
LaCie Belgium Contact us at: http://www.lacie.com/be/contact/ (Français)	LaCie Canada Contact us at: http://www.lacie.com/caen/contact/ (English)
LaCie Denmark Contact us at: http://www.lacie.com/dk/contact	LaCie Finland Contact us at: http://www.lacie.com/fi/contact/
LaCie France Contact us at: http://www.lacie.com/fr/contact/	LaCie Germany Contact us at: http://www.lacie.com/de/contact/
LaCie Italy Contact us at: http://www.lacie.com/it/contact/	LaCie Japan Contact us at: http://www.lacie.com/jp/contact/
LaCie Netherlands Contact us at: http://www.lacie.com/nl/contact/	LaCie Norway Contact us at: http://www.lacie.com/no/contact/
LaCie Spain Contact us at: http://www.lacie.com/es/contact/	LaCie Sweden Contact us at: http://www.lacie.com/se/contact
LaCie Switzerland Contact us at: http://www.lacie.com/chfr/contact/ (Français)	LaCie United Kingdom Contact us at: http://www.lacie.com/uk/contact
LaCie Ireland Contact us at: http://www.lacie.com/ie/contact/	LaCie USA Contact us at: http://www.lacie.com/contact/
LaCie International Contact us at: http://www.lacie.com/intl/contact/	

10. Warranty Information

LaCie warrants your drive against any defect in material and workmanship, under normal use, for the period designated on your warranty certificate. In the event this product is found to be defective within the warranty period, LaCie will, at its option, repair or replace the defective drive.

This warranty is void if:

- The drive was operated/stored in abnormal use or maintenance conditions;
- The drive is repaired, modified or altered, unless such repair, modification or alteration is expressly authorized in writing by LaCie;
- The drive was subjected to abuse, neglect, lightning strike, electrical fault, improper packaging or accident;
- The drive was installed improperly;
- The serial number of the drive is defaced or missing;
- The broken part is a replacement part such as a pickup tray, etc.
- The tamper seal on the drive casing is broken.

LaCie and its suppliers accept no liability for any loss of data during the use of this device, or for any of the problems caused as a result.

LaCie will not, under any circumstances, be liable for direct, special or consequential damages such as, but not limited to, damage or loss of property or equipment, loss of profits or revenues, cost of replacement goods, or expense or inconvenience caused by service interruptions.

Any loss, corruption or destruction of data while using a LaCie drive is the sole responsibility of the user, and under no circumstances will LaCie be held liable for the recovery or restoration of this data.

Under no circumstances will any person be entitled to any sum greater than the purchase price paid for the drive.

To obtain warranty service, call LaCie Technical Support. You will be asked to provide your LaCie product's serial number, and you may be asked to furnish proof of purchase to confirm that the drive is still under warranty.

All drives returned to LaCie must be securely packaged in their original box and shipped with postage prepaid.

IMPORTANT INFO: Register online for free technical support: www.lacie.com/register

11. Glossary

480p – Also known as 480 progressive, this is a form of standard-definition digital television (SDTV) which is similar to VGA computer displays. A DVD's resolution is 480p, but this resolution can only be seen when the DVD player outputs a progressive-scan signal, and the television has progressive-scan or component-video inputs.

720p – Also known as 720 progressive, this is one of two formats designated as a high-definition digital television (HDTV), ATSC DTV standard. This technology uses progressive scanning and is comprised of 720 vertical pixels by 1,280 horizontal pixels.

1080i – Also known as 1080 interlaced, this is the second of two formats designated as a high-definition digital television (HDTV), ATSC DTV standard. This technology uses interlaced scanning and is comprised of 1,080 vertical pixels by 1,920 horizontal pixels.

1080p – Known also as full HD or Complete High Definition, 1080p usually has a widescreen aspect ration of 16:9, which means a horizontal resolution of 1920 pixels. The "p" stands for "progressive scan".

AVI (Audio Video Interleave) – A file format that can contain audio/video compressed standards using different combinations of codecs (e.g. DivX® video file and a WMA audio file). DivX® – A video codec developed from the new MPEG-4 compression standard, which allows for compression/decompression of videos into a specified format. The DivX® codec can play movies using any DivX®-enabled player, such as the LaCinema Rugged HD. DivX® movies offer better compression and higher quality than standard MPEG movies.

DTS – Digital sound technology, which provides the technology for virtually all movie soundtracks.

Firmware – Permanent or semi-permanent instructions and data programmed directly into the circuitry of a programmable read-only memory or an electronically-erasable, programmable read-only memory chip. Used for controlling the operation of the computer or tape drive. Distinct from the software, which is stored in random access memory and can be altered.

ID3 Tag – An embedded tag in MP3 files that communicates a song's title, artist and album. These tags can be edited.

MPEG (Motion Picture Experts Group) – These are the developers of the MPEG-1 (VideoCDs), MPEG-2 (DVDs and SuperVCDs) and MPEG-4 (DivX®, WMV) video compression standards. The MPEG group is also responsible for the development of the MP3 and AAC audio compression standards.

NTSC (National Television Standards Committee) – This group is responsible for the development of a set of protocols used for transmission and reception of TV broadcasts in the United States. An NTSC image has 525 horizontal lines per frame, which are interlaced from left to right, top to bottom. NTSC signals are not directly compatible with computer systems.

PAL (Phase Alternation Line) – This is the analog TV display commonly used in Europe. The PAL image has 625 horizontal lines per frame, and the color definition differs slightly from the NTSC standard.

VOB (Video Objects) – The format in which DVD movies are stored. Within each VOB file, a number of video/audio/subpicture streams are stored. Subpicture streams refer to the subtitles on DVDs and other VOB files. These subtitles are video streams that overlay the main picture stream, and can be turned on or off.

WMA (Windows Media Audio) – An audio format developed by Microsoft® for audio streaming and compression.

XviD – A video codec, very similar to DivX®, based on the MPEG-4 compression standard. This an open-source video codec that is currently being developed around the world. The XviD codec can play movies using any XviD-enabled player, such as the LaCinema Rugged HD.

H.264: The H.264 codec delivers the same quality as MPEG-2 at a third to half the data rate. H.264 is additionally acclaimed for its scalability, as it provides superior file size to quality ratios for a range of video resolutions, from mobile devices to HD.

MKV: Matrovska (MKV) is similar to other video containers but its specification is entirely open. It is a highly effective container for storing common multimedia content, and has become extremely popular for distributing HD content.

MPEG-2 HD: MPEG-2 is widely implemented thanks to its support for interlaced video (the type used by analog broadcast TV systems) and support for HD-quality streams. It outperforms MPEG-1 at higher resolutions (greater than 3Mbit/s) in terms of quality and compression efficacy.